BREAKOUT TANK INSPECTION FORM

A completed **Standard Inspection Report** is to be submitted to the Director within 60 days from completion of the inspection. A **Post Inspection Memorandum (PIM)** is to be completed and submitted to the Director within 30 days from the completion of the inspection, or series of inspections, and is to be filed as part of the **Standard Inspection Report.** Refer to the last page of this form for **PIM** example entries.

Inspection Report	Post Inspection Memorandum
Inspector/Submit Date: _____	**Inspector/Submit Date:** _____ **Peer Review/Date:** _____ **Director Approval/Date:**

POST INSPECTION MEMORANDUM (PIM)		
Name of Operator:		**OPID #:**
Name of Unit(s):		**Unit # (s):**
Records Location:		
Unit Type & Commodity:		
Inspection Type:	**Inspection Date(s):**	
OPS Representative(s):		**AFO Days:**
Summary:		
Findings:		

BREAKOUT TANK INSPECTION FORM

Name of Operator:	
H.Q. Address:	**System/Unit Address:**
Co. Official: **Phone No.:** **Fax No.:** **Emergency Phone No.:**	**Activity Record ID#:** **Phone No.:** **Fax No.:** **Emergency Phone No.:**

Persons Interviewe d	Titles	Phone No.

Company System Maps (copies for Region Files):

Comments:

For hazardous liquid operator inspections, the attached evaluation form should be used in conjunction with 49 CFR 195 during OPS inspections.

BREAKOUT TANK INSPECTION FORM

TANK DATA

		1	2	3	4	5	6
(A)	FACILITY NAME						
(B)	TANK #						
(C)	CONSTRUCTION DATE / API STANDARD						
(D)	CONST. TYPE						
(E)	CAPACITY (BBL)						
(F)	INTERNAL LINING? (Y/N)						
(G)	HT.(FT)						
(H)	MAX. FILL HT. (FT)						
(I)	DIA (FT)						
(J)	ROOF TYPE						
(K)	PRODUCTS						
(L)	TYPE OF VOLUMETRIC ALARMS						
(M)	DIKE VOLUME (BBL)						
(N)	DATE INTERNAL INSPECTION						
(O)	DATE REPAIRED						
(P)	DATE API 653 APPLIED						
(Q)	CATHODIC PROTECTION TYPE						

Legend:
(D): (W) Welded; (R) Riveted; (B) Bolted
(J): (EF) External Floater; (IF) Internal Floater; (F) Fixed
(K): (R) Refined; (C) Crude; (H) Highly Volatile Liquid; (O) Other
(L): (H) High; (HH) High-High; (O) Overfill; (OTH) Other
(N): Most Recent Date
(O): Most Recent Date
(Q): (A) Anodic; (R) Rectified; (N) None - Document why not needed.

BREAKOUT TANK INSPECTION FORM

Field Verification of Facility Response Plan Information			Y	N	N/A
194.111	Is there a copy of the approved Facility Response Plan present?				
	RSPA Tracking Number:	Approval Date:			
194.107	Are the names and phone numbers on the notification list in the FRP current?				
194.107	Is there written proof of a contract with the primary oil spill removal organization (OSRO)?				
194.107	Are there complete records of the operator's oil spill exercise program?				
194.117	Does the operator maintain records for spill response training (including Hazwoper training)?				

Do any of the Breakout Tanks have a history of corrosion underneath the tank bottoms? ☐ Yes ☐ No

If yes, has the operator calculated corrosion rates based on information from an API 653 internal inspection report? ☐ Yes ☐ No

Since last inspection, has there been any change of physical condition or service of the tank(s)? ☐ Yes ☐ No

If so, has there been any evaluation to determine the suitability for continued use? ☐ Yes ☐ No

Type of leak detection system the operator utilizes. If leak detection is utilized, then describe:

Is there a valve on the inlet and outlet line of the tank area so one can isolate the tank area from the other facilities (§195.258(a) & §195.260(b))? ☐ Yes ☐ No

§195.430 Is fire fighting equipment:

- adequate; ☐ Yes ☐ No
- in proper operating condition; ☐ Yes ☐ No
- plainly marked; ☐ Yes ☐ No
- and located to be easily accessible? ☐ Yes ☐ No

§195.434 - Are signs around each breakout tank area visible to the public? Signs must include the name of the operator and an emergency telephone number to contact . ☐ Yes ☐ No

§195.436 & §195.264(c) - Is there protection for each breakout tank area from vandalism and unauthorized entry? ☐ Yes ☐ No

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked

For any item marked U, N/A, or N/C, there must be a note indicating why.

Subpart F - Operations & Maintenance		S	U	N/A	N/C
§195.402(a)	**General O&M Requirement:** Each operator must prepare and follow for each pipeline system (including breakout tanks) a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies				
	Does the operator have written procedures for Breakout tanks? (Procedures must address operations, maintenance, repair, emergency, and abnormal operations.)				
195.404(a)(1)(i)	**Maps:** Are maps and records maintained showing the location and identification of the following;				
	1. Breakout tanks (capacity, other information)				
	2. Pipeline valves (tank isolation valves, manifold valves, emergency valves...)				
	3. Cathodically protected tanks and associated facilities				
	4. Overpressure and overfill safety devices (as required under 195.428)				
§195.402(a)	**Protection against Ignition and Safe Access/Egress Involving Floating Roofs**				
§195.402(c)(3)	405(a). **Protection against Ignition (After October 2, 2000)** Protection against ignitions arising out of static electricity, lightning, and stray currents during operation and maintenance activities involving aboveground breakout tanks must be in accordance with **API Recommended Practice 2003** (**Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents**). *Not required if operator notes in procedures why compliance with API 2003 is not necessary for tank safety).* ***(Refer to Subsection 4.5, Subsection 4.6, Subsection 5.4 , Subsection 5.5, and Subsection 6.3 of API RP 2003)***				
	405(b). **Safe Access/Egress Involving Floating Roofs (After October 2, 2000)** The operator must review and consider the potentially hazardous conditions, safety practices and procedures with respect to access/egress onto floating roofs of in-service aboveground breakout tanks to perform inspection, service, maintenance or repair activities in **API Publication 2026 (Safe Access/Egress Involving Floating Roofs Of Storage Tanks In Petroleum Service)** for inclusion in the procedure manual (Sec. 195.402(c)).				
	Has the operator reviewed and considered the potentially hazardous conditions, safety practices and procedures outlined in **API 2026 (Safe Access/Egress Involving Floating Roofs Of Storage Tanks In Petroleum Service)** for inclusion in the operators procedure manual? *Review for documentation that this has been done.*				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked

For any item marked U, N/A, or N/C, there must be a note indicating why.

§195.402(a)		External Corrosion Control	S	U	N/A	N/C
§195.402(c)(3)	.563(d)	Breakout tank areas, bare pipelines, and buried pumping station piping must have cathodic protection in places where previous editions of this part required cathodic protection as a result of electrical inspections.				
	.565	**Breakout Tank CP installation** Does operator install (after 10/2/00) required cathodic protection systems to protect above ground breakout tanks over 500 bbl capacity, in accordance with API RP 651? *(Not required if operator notes in the corrosion control procedures why compliance with API 651 is not necessary for tank safety).*				
	.571	**Cathodic Protection Acceptance Criteria** Cathodic protection levels must comply with the applicable criteria outlined in NACE Standard RP0169-96 (paragraphs 6.2 and 6.3)				
	.573(d)	**Breakout Tank CP inspections**				
		Cathodic protection systems used to protect breakout tanks must be inspected in accordance with API 651.				
		(Not required if operator notes in the corrosion control procedures why compliance with API 651 is not necessary for tank safety).				
	11.3.2	**Cathodic Protection Surveys** - Annual CP surveys are required. Surveys may include one or more of the following:				
		1. Structure to soil potential.				
		2. Anode current.				
		3. Native structure to soil potentials				
		4. Structure-to-structure potential				
		5. Piping-to-tank isolation if protected separately.				
		6. Structure-to-soil potential on adjacent structures.				
		7. Continuity of structures if protected as a single structure.				
		8. Rectifier DC volts, DC amps, efficiency, and tap settings.				
		Rectifier Inspections:				
		- every 2 months. - (Inspections should include a check for electrical shorts, ground connections, meter accuracy, and circuit resistance).				
		- Annual inspection (Inspections should include a check for electrical shorts, ground connections, meter accuracy, efficiency, and circuit resistance).				
	11.3.3.3	**Insulator, bonds, isolating devices** - Must be done periodically. May be done by on-site inspection or evaluating corrosion test data.				
	11.3.3.4	**Tank Bottoms** - Tank bottom should be examined for evidence of corrosion whenever access to the bottom is possible. (During repairs, modifications, during API653 inspections) Examinations may be done by coupon cutouts or nondestructive methods.				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked

For any item marked U, N/A, or N/C, there must be a note indicating why.

			S	U	N/A	N/C
§195.402(a)	**External Corrosion Control (con't)**					
	.577(a)	**Interference Currents** For breakout tanks exposed to stray currents, is there a program to minimize the detrimental effects?				
	.579(d)	**Breakout tank - internal corrosion mitigation** After October 2, 2000, tank bottom linings installed in tanks built to **API 12F (Specification for Shop Welded Tanks for Storage of Production Liquids)**, **API 620 (Design, Construction, Large, Welded, Low-Pressure Storage Tanks), API 650 (Welded Steel Tanks for Oil Storage), or its predecessor 12C** must be installed in accordance with API RP 652. *Not required if operator notes in the corrosion control procedures why compliance with API 652 is not necessary for tank safety.*				
§195.402(a)	**Tank Repairs, Alterations, and Reconstruction Procedures**					
§195.402(c)(3) §195.422	.205(a)	Aboveground breakout tanks repaired, altered, or reconstructed and returned to service must be capable of withstanding the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads. *The repair/alteration history includes all data accumulated on a tank from the time of its construction with regard to repairs, alterations, replacements, and service changes (recorded with service conditions such as stored product temperature and pressure). These records should include the results of any experiences with coatings and linings.*				
	.205(b)	After Oct. 2, 2000 compliance with paragraph (a) above requires:				
		(1) Tanks designed for approximately atmospheric pressure, constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated built to **API Standard 650 (Welded Steel Tanks for Oil Storage)** must be repaired, altered, or reconstructed according to API Standard 653. *The basis for repairs and alterations shall be an API Standard 650 equivalence*				
		(2) Tanks built to API Specification 12F (Specification for Shop Welded Tanks for Storage of Production Liquids) or API Standard 620 (Design, Construction, Large, Welded, Low-Pressure Storage Tanks), the repair, alteration, and reconstruction must be in accordance with the design, welding, examination, and material requirements of those respective standards. Tanks built to API 620 may be modified by the design, welding examination and testing provisions of API 653 in proper conformance with the stresses, joint efficiencies, material and other provisions in API standard 620.				
		(3) For high pressure tanks built to API Standards 2510 (Design and Construction of LPG Installations), repaired, altered, or reconstructed will be in accordance with API 510 (Pressure Vessel Inspection Code).				
	.422	Are repairs made in a safe manner and are made so as to prevent damage to persons or property?				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked
For any item marked U, N/A, or N/C, there must be a note indicating why.

	Impoundment, Protection Against Entry, Relief, and Venting Procedures- Aboveground Breakout Tanks	S	U	N/A	N/C
	.264(a) A means must be provided for containing hazardous liquids in the event of spillage or failure of an aboveground breakout tank. Containment and impoundment are effective means of controlling environmental releases and fires.				
	.264(b) After Oct. 2, 2000, compliance with paragraph (a) above requires:				
	(1) For tanks built to **API Specification 12F (Specification for Shop Welded Tanks for Storage of Production Liquids) , API Standard 620 (Design, Construction, Large, Welded, Low-Pressure Storage Tanks)**, and others (such as **API Standard 650** or its predecessor Standard **12C**), the installation of impoundment must be in accordance with the following sections of **NFPA 30 (Flammable and Combustible Liquids Code):**				
	(i) Impoundment around a breakout tank must be installed in accordance with Section 2-3.4.3; and				
	(ii) Impoundment by drainage to a remote impounding area must be installed in accordance with Section 2-3.4.2.				
	(2) For tanks built to **API Standard 2510**, the installation of impoundment must be in accordance with Section 3 or 9 of **API Standard 2510. (Design and Construction of LPG Installations):** *Refer to Section 3 API Standard 2510 - Siting Requirements and Spill Containment* *3.1 Siting* *3.2 Drainage* *3.3 Spill Containment* *3.4 Remote Impoundment* *3.5 Diking* *Section 9 - Refrigerated Storage* *9.3 Siting Requirements* *9.3.1 Minimum Distance Requirements for Refrigerated LPG Tanks* *9.3.2 Siting of Refrigerated LPG Tanks* *9.3.3 Spill Containment* *9.3.4 Remote Impoundment* *9.3.5 Diking*				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked
For any item marked U, N/A, or N/C, there must be a note indicating why.

	Impoundment, Protection Against Entry, Relief, and Venting Procedures-Aboveground Breakout Tanks (con't)	S	U	N/A	N/C
	.264(d) Normal/emergency relief venting must be provided for each atmospheric pressure breakout tank. Pressure/vacuum-relieving devices must be provided for each low-pressure and high-pressure breakout tank. *Two basic types of pressure or vacuum vents, direct-acting vent valves and pilot-operated vent valves, are available to provide overpressure or vacuum protection for low-pressure storage tanks. Direct-acting vent valves may be weight loaded or spring loaded. Another type of venting device, an open vent, is available to provide overpressure or vacuum protection for storage tanks designed to operate at atmospheric pressure. An open vent is always open. It allows a tank designed to operate at atmospheric pressure to inbreathe and outbreathe at any pressure differential.*				
	.264(e) For normal/emergency relief venting and pressure/vacuum-relieving devices installed on aboveground breakout tanks after October 2, 2000, compliance with paragraph (d) of this section requires the following for the tanks specified:				
	(1) Normal/emergency relief venting installed on atmospheric pressure tanks built to **API Specification 12F (Specification for Shop Welded Tanks for Storage of Production Liquids)** must be in accordance with Section 4, and Appendices B and C, of **API Specification 12F (Specification for Shop Welded Tanks for Storage of Production Liquids) .** *4 - Venting Requirements* *4.1 Normal Venting* *4.2 Emergency Venting* *Appendix B – Recommended Practice for Normal Venting* *Appendix C – Recommended Relieving Capacities*				
	(2) Normal/emergency relief venting installed on atmospheric pressure tanks (such as those **built to API Standard 650** or its predecessor **Standard 12C**) must be in accordance with **API Standard 2000. (Venting Atmospheric and Low-Pressure Storage Tanks Nonrefrigerated and Refrigerated)**				
	(3) Pressure-relieving and emergency vacuum-relieving devices installed on low pressure tanks built to **API Standard 620 (Design, Construction, Large, Welded, Low-Pressure Storage Tanks)** must be in accordance with Section 7 of API Standard 620 and its references to the normal and emergency venting requirements in API Standard 2000. *Section 7 - Pressure- and Vacuum-Relieving Devices* ***7.1 Scope*** ***7.2 Pressure Limits*** ***7.3 Construction of Devices*** ***7.4 Means of Venting*** ***7.5 Liquid Relief Valves*** ***7.6 Marking*** ***7.7 Pressure Setting of Safety Devices***				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked
For any item marked U, N/A, or N/C, there must be a note indicating why.

	Impoundment, Protection Against Entry, Relief, and Venting Procedures- Aboveground Breakout Tanks (con't)	S	U	N/A	N/C
	(4) Pressure and vacuum-relieving devices installed on high pressure tanks built to **API Standard 2510 (Design and Construction of LPG Installations):** must be in accordance with Sections 5 or 9 of API Standard 2510. *Section 5 - Tank Accessories, Including Pressure and Vacuum-Relieving* *5.1 Mandatory Equipment* *5.2 Tank Accessory Materials* *Section 9 - Refrigerated Storage*				
§195.402(a)	**Overpressure Safety Devices Procedures**	**S**	**U**	**N/A**	**N/C**
§195.402(c)(3)	.428(a) Inspect and test each pressure limiting device, relief valve, pressure regulator, or other pressure control equipment. (Annually/15 mo)				
	.428(c) Aboveground breakout tanks • constructed or significantly altered according to section 5.1.2 of **API Standard 2510 (Design and Construction of LPG Installations)** after October 2, 2000 must have an overfill protection system according to 5.1.2 of API Standard 2510. • **if (600 gallons or more)** constructed or significantly altered after October 2, 2000, must have overfill protection according to **API Recommended Practice 2350 (Overfill Protection for Storage Tanks in a Petroleum Facility)**. *(Not required if operator notes in procedures why compliance with API RP 2350 is not necessary for tank safety).* **For Unattended Facilities (for definition, see API RP 2350, paragraph 1.3.1), Section 2.** **For Attended Facilities (for definition, see API RP 2350, paragraph 1.3.1), Section 3 and for all facilities, transfer procedures need to be per Section 4.**				
	.428(d) After October 2, 2000, paragraphs (a) and (b) of §195.428 also applies for the inspection and testing of pressure control equipment and to the testing of overfill protection systems. **Subsection 4.8 of API RP 2350.**				
§195.402(a)	**In-service Breakout Tank Inspection Procedures**	**S**	**U**	**N/A**	**N/C**
§195.402(c)(3)	.432(a) **<u>Inspection Intervals (In-service tank):</u>** Inspection of in-service breakout tanks. (annually/ 15mo) includes anhydrous ammonia and any other breakout tank that is not inspected per 432 (b) & (c); (Reference 195.1)				
	.432(b) Each operator shall inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to section 4 of API Standard 653. However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under §195.402(c)(3).				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked

For any item marked U, N/A, or N/C, there must be a note indicating why.

§195.402(a)	In-service Breakout Tank Inspection Procedures (con't)	S	U	N/A	N/C
	.432(b) Each operator shall inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to section 4 of API Standard 653. However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under §195.402(c)(3). *Refer to API 653 Section 4.3.1; 4.3.1.1; 4.3.1.2; 4.3.1.3; 4.3.2; 4.3.2; 4.3.2.1; 4.3.2.2; 4.3.2.3; 4.3.3.2; & 4.3.3.3*				
	4.4.2.2 When corrosion rates are not known and similar service experience is not available to determine the bottom plate minimum thickness at the next inspection, the actual bottom thickness shall be determined by inspection(s) within the next 10 years of tank operation to establish corrosion rates. Refer to API 653 Section 4.4; 4.4.2; 4.4.2.1; 4.4.2.2; 4.4.3; & 4.5				
	.432(c) Each operator shall inspect the physical integrity of in-service steel aboveground breakout tanks built to API Standard 2510 according to section 6 of API 510.				
	.432(d) The intervals of inspection referenced in paragraphs (b) and (c) begin on May 3, 1999, or on the operator's last recorded date of the inspection, whichever is earlier. For API 12F (Specification for Shop Welded Tanks for Storage of Production Liquids) , or its predecessor 12C, 650, and 620 tanks, the "clock" starts at the earliest of: 1) May 3, 1999, 2) Last record date of the inspection (annual), or 3) Whenever API Std 653 program was established for the particular tank.				
§195.402(a)	**Pressure Test Procedures/Pressure Testing Aboveground Breakout Tanks**				
	.307(a) Aboveground breakout tanks built to **API Specification 12F (Specification for Shop Welded Tanks for Storage of Production Liquids)** and first placed in service after October 2, 2000, pneumatic testing must be in accordance with section 5.3 of API Specification 12F.				
	.307(b) Aboveground breakout tanks built to **API Standard 620 (Design, Construction, Large Welded Low Pressure Storage Tanks**) and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section 5.18 of API Standard 620.				
	.307(c) Aboveground breakout tanks built to **API Standard 650 (Welded Steel Tanks For Oil Storage)** and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section 5.3 of API Standard 650.				
	.307(d) Aboveground atmospheric pressure breakout tanks constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated and tanks built to **API Standard 650 Welded Steel Tanks For Oil Storage)** or its predecessor **Standard 12C** that are returned to service after October 2, 2000, the necessity for the hydrostatic testing of repair, alteration, and reconstruction is covered in section 10.3 of API Standard 653.				
	.307(e) Aboveground breakout tanks **built to API Standard 2510 (Design and Construction of LPG Installations)** and first placed in service after October 2, 2000, pressure testing must be in accordance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 or 2.				

BREAKOUT TANK INSPECTION FORM

S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked
For any item marked U, N/A, or N/C, there must be a note indicating why.

PART 195 - FIELD REVIEW				S	U	N/A	N/C
195.565/API651	Cathodic Protection System Facilities						
§195.581	Atmospheric Corrosion						
§195.428	Pressure Limiting Devices, relief valve, pressure regulator, overfill protection systems.						
§195.432	Breakout Tanks (Refer to App. C in API 653, In-Service Inspection Checklist)						
	C.1.1.1 Concrete Ring:	a.	Broken concrete, spalling, and cracks, particularly under backup bars used in welding butt welded annular rings under the shell.				
		b.	Drainage openings in ring, back of waterdraw basins, and top surface of ring indicating bottom leakage.				
		c.	Cavities under foundation and vegetation against bottom of tank.				
		d.	Runoff rainwater from the shell drains away from tank.				
		e.	Settlement around perimeter of tank and ringwall.				
	C.1.1.2 Asphalt:	a.	Settling of tank into asphalt base which could direct runoff rain under the tank instead of away from it.				
		b.	Areas where leaching of oil out of the asphalt has left rock filler exposed, indicating hydrocarbon leakage.				
	C.1.1.1 Site Drainage:	a.	Drainage is away from the tank, associated piping, and manifolds.				
		b.	Dyke drains are operational.				
	C.1.1.6 Housekeeping		Area is void of trash buildup, vegetation, and other inflammables.				
	C.1.2.1 External Visual Inspection:	a.	Exterior paint failure, pitting, and corrosion.				
		b.	Corrosion and thinning on plate and weld in bottom angle area.				
		c.	Integrity of the bottom-to-foundation seal, if present.				
		d.	Any shell deformation.				
	C.1.2.3 Riveted Shell Inspection:		Rivet and seam leakage.				
	C.1.3.1 Manways and Nozzles	a.	Presence of cracks or signs of leakage on weld joints at nozzles, manways, and reinforcing plates.				
		b.	Shell plate dimpling around nozzles, caused by excessive pipe deflection.				
		c.	Flange leaks and leaks around flange bolts.				
		d.	Insulation seals around manways and nozzles.				
		e.	Inadequate manway flange and cover thickness on mixer manways.				
	C.1.3.2 Tank Piping Manifolds:	a.	Manifold piping, flanges, and valves leakage.				
		b.	Fire fighting system components.				
		c.	Anchored piping which would cause tank shell bottom connection damage during earth movement.				
		d.	Adequate thermal pressure relief of piping to the tank.				
		e.	Operating and functional regulator (tanks with purge gas systems).				
		f.	Connections are leak free and valves operate properly.				
		g.	Temperature indicators are accurate and undamaged.				
		h.	Welds on shell-mounted davit clips above valves 6 inches and larger.				

BREAKOUT TANK INSPECTION FORM

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For any item marked U, N/A, or N/C, there must be a note indicating why.

PART 195 - FIELD REVIEW			S	U	N/A	N/C
§195.432	Breakout Tanks (Refer to App. C in API 653, In-Service Inspection Checklist) (Con't)					
	C.1.3.3 Autogauge System:	a. Autogauge tape guide and lower sheave housing (floating swings) show no signs of leaks.				
		b. History of tape hanging up during tank roof movement (floating roof tanks).				
		c. Condition of board and legibility of board-type autogauges.				
	C.1.3.4 Shell - Mounted Sample Station:	a. Sample line and return-to-tank line valves, seals, and drains function properly.				
		b. Circulation pump has no signs of leaks or operating problems.				
	C.1.3.5 Heater (Shell Manway Mounted):	Oil is not present at condensate drain (would indicate leakage).				
	C.1.3.6 Mixer:	a. Mounting flange is properly supported..				
		b. Signs of leakage.				

PART 195 - RECORDS REVIEW		S	U	N/A	N/C
§195.402(c)(1) §195.404(c)(2)§ 195.205(a)&(b)	Tank alteration and reconstruction records. For tanks repaired after 10/2/00, records reflecting compliance with the referenced API standards. (Maintain for at least 1 year)				
§195.402(c)(1) §195.264 (a)&(b)	Impoundment determination records. For tanks constructed after October 2, 2000, records reflecting compliance with the referenced API/NFPA standards.				
§195.402(c)(1) §195.264(d)	Record of calculations for normal/relief vents and pressure/vacuum vents.				
§195.310 §195.307	For tanks first placed in service after 10/2/00, Hydrostatic/pneumatic testing records for above ground breakout tanks.				
	C Built according to API 12F, testing according to Sect. 5.3 of API 12F.				
	C Built according to API 620, testing according to Sect. 5.18 of API 620.				
	C Built according to API 650, testing according to Sect. 5.3 of API 650.				
	C Repaired/altered/reconstructed according to API 2510, testing according to Sect. 5.3 of API 650.				
	C Built according to API 2510, testing according to ASME Boiler and Pressure Vessel Code, section VIII, Division 1 or 2.				
§195.589(a)(2) & (b)	Tank cathodic protection facilities including galvanic anodes installed after January 29, 2002 (maintain current records or maps).				
§195.589(a)(3)	Nearby structures bonded to tank cp system (maintain current records or maps).				
§195.589(c)	Each tank corrosion control survey, inspection, test, etc. demonstrating adequacy, according to 195.573(d) and API RP 651 (maintain for at least 5 years).				
§195.404(c)(3)	§195.432(b) - Breakout tanks external and internal inspection according to Section 4 of API 653. (Maintain for longer than 2 years or until next inspection/test)				
§195.404(c)(3)	§195.432(c) - Breakout tanks **(built according to API Standard 2510)** external and internal inspection according to Section 6 of API 510 (maintain for longer than 2 years or until next inspection/test).				

PIM Entry Examples

POST INSPECTION MEMORANDUM (PIM)			
Name of Operator:	NoFail Pipeline Company	**OPID #:**	2314
Name of Unit(s):	Boardwalk and Parkplace	**Unit # (s):**	234, 278
Records Location:	Pipelineville, NC		
Unit Type & Commodity:	Interstate Natural Gas (A3) – Natural Gas		
Inspection Type:	Standard	**Inspection Date(s):**	12/24-27/03
OPS Representative(s):	John Brown	**AFO Days:**	4

Summary:

On December 24-27, I performed a standard inspection of the NoFail pipeline facilities contained in units 234 and 278. The evaluation report contains a component description of the two units. The inspection included a records and facilities review. A Joint O&M inspection was conducted in 2003 and no procedures were evaluated during this inspection. Pre-inspection preparation identified previous valve inspection violations: I reviewed all of the company's valve inspection records and five aboveground valve settings and did not identify any potential non-compliances. Right-of-way inspection and periodic cathodic protection checks were conducted between Chance, NC to Community Chest, NC and from Reading, SC to Ventnor, SC. The Mighty Big'nWet River crossing was evaluated for atmospheric corrosion.

Findings:

The pipeline facilities appeared to be well maintained and serious concerns were noted: surface rusting was observed at the Pipelineville compressor station. No pitting was observed. NoFail is in the process of repainting all of the aboveground piping at this facility.

The following concerns were noted from the records review:

1. The rectifiers in Unit 234 were inspected on 3 times in 2001, twice in 2002, and five times in 2003. Copies of the subject records were obtained.
2. The right-of-way in Unit 234 was densely overgrown such that aerial patrols would be ineffective. Pictures were taken of representative areas.